

ECS Configuration Change Request

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CCR No. <u>98-0370</u>	Logged Date <u>03/25/98</u>	Rev. <u>—</u>	Request Type <u>CCR</u>
Priority <input type="checkbox"/> Routine <input type="checkbox"/> Urgent <input type="checkbox"/> Emergency <input checked="" type="checkbox"/>	Affected Release <u>Version 2</u>	Change Class <u>II</u>	
Title (description) MODIS requires the following functional fix to continue development for launch using Toolkit: "Function Gdgetpixvalues was modified to reduce overhead"			
Documents Affected Release B.0 Toolkit Version Description Document For The ECS Project (Addendum)		Source Nos (RID, NCR, Action Item, GSFC CCR, etc.) or Tech Reference NCR ECSed13429	
RTM Change <input type="checkbox"/> Start New Baseline <input type="checkbox"/>			
Problem The function GDgetpixvalues is designed to read field data for more than one point. It checks for gridid, fieldname, etc, and enters a for loop to read data for n points calling GDreadfield. The function GDreadfield again checks for gridid, fieldname, etc, which is not necessary, since these have already been checked. The overhead needs to be removed by restructuring the function. The modification makes the data reading from HDF file faster (for packed grid points used by MODIS the new format was %97 faster). The function is called by GDgetpixval and GDinterpolate in the GDapi.c file.			
Proposed Solution The function Gdgetpixvalues was modified to reduce the overhead: for all points to be read, the function only checks for gridid, fieldname, and sdid one time.			
Impact Analysis:			
Organizations Affected:	BOO <input type="checkbox"/>	Contracts <input type="checkbox"/>	ECS Chief Eng <input type="checkbox"/>
Procurement <input type="checkbox"/>	OO <input type="checkbox"/>	Rel. Dev <input checked="" type="checkbox"/>	Rel. A <input type="checkbox"/>
Science Off <input checked="" type="checkbox"/>	Security <input type="checkbox"/>	Subcontract <input type="checkbox"/>	Sys. Eng <input type="checkbox"/>
			FOS <input type="checkbox"/>
			Rel. C <input type="checkbox"/>
			Sys Verif Acpt <input type="checkbox"/>
			M&O <input checked="" type="checkbox"/>
			SCDO Arch. <input type="checkbox"/>
Cost:	None <input checked="" type="checkbox"/>	Small <input type="checkbox"/>	Medium <input type="checkbox"/>
		(Not exceeding \$100,000)	(\$100,000 to \$500,000)
			Large <input type="checkbox"/>
			(Over \$500,000)
Schedule:	None <input checked="" type="checkbox"/>	Other	
Additional LOC	_____		Man-Months _____
Materials	_____		
Originator <u>Darryl Arrington</u>	Signature <u>[Signature]</u>		Date _____
Office <u>WFO</u>	Office Manager <u>[Signature]</u>		Date <u>3/25/98</u>
Disposition	Approved <input checked="" type="checkbox"/>	Approved w/Comment <input type="checkbox"/>	Forward <input type="checkbox"/>
			Disapproved <input type="checkbox"/>
Comments:	_____		
	CCB Chairperson <u>[Signature]</u>		Date <u>3/25/98</u>
	Signature		Date

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